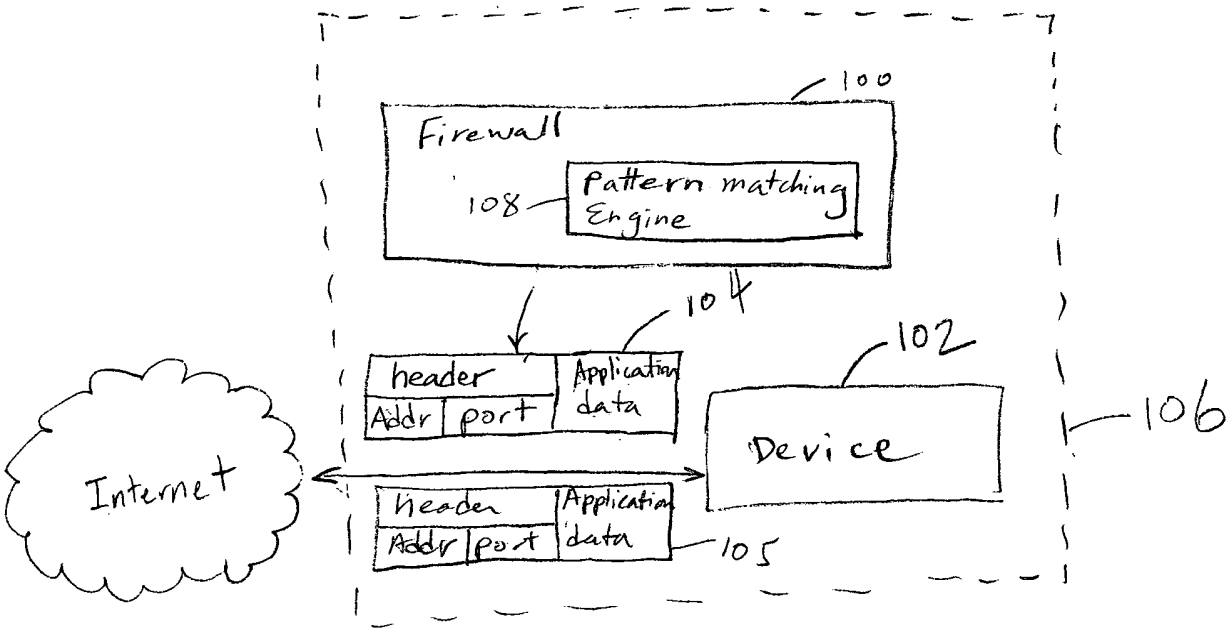
100
Firewall
108
Pattern matching Engine
104
header
Addr
port
Application data
102
Device
106
Internet
header
Addr
port
Application data
105

Figure 1

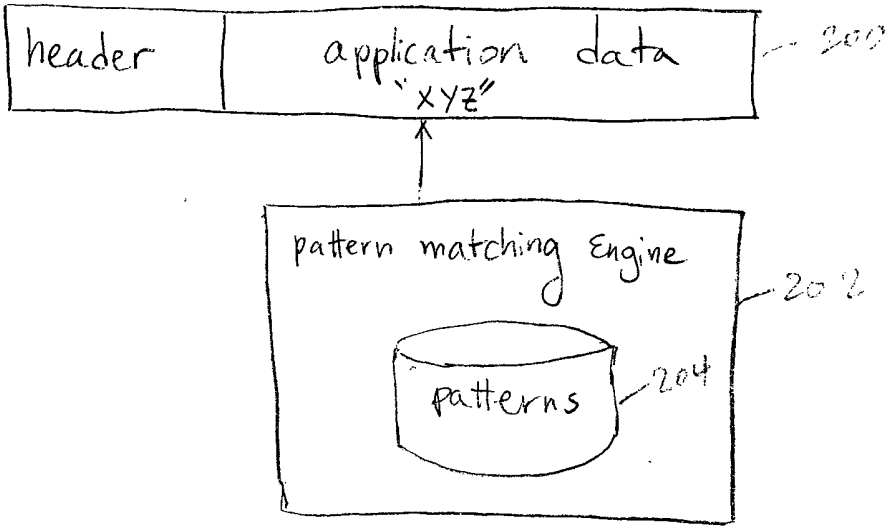
header
application data
"XYZ"
200
pattern matching Engine
202
patterns
204

Figure 2

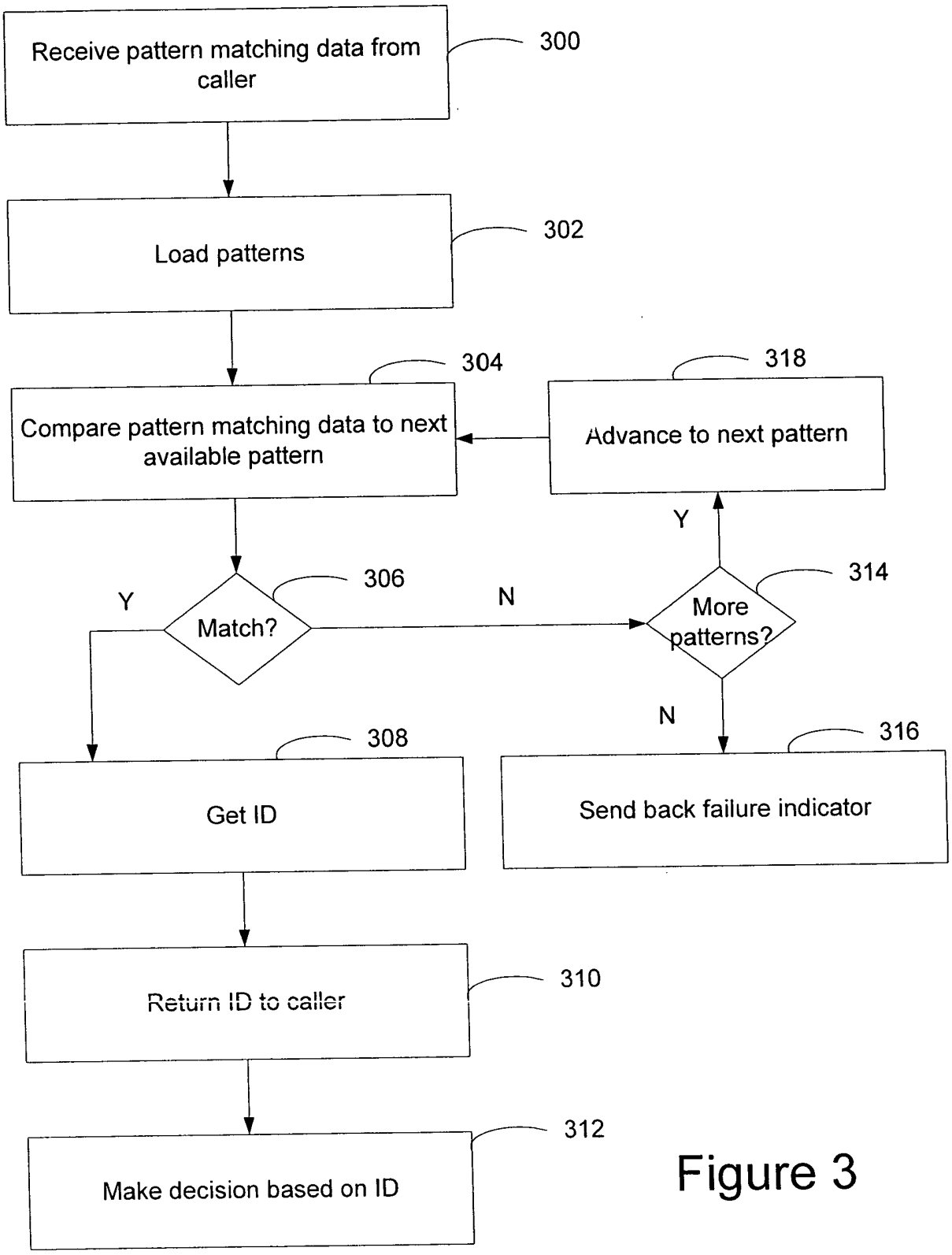
Receive pattern matching data from caller
300
Load patterns
302
Compare pattern matching data to next available pattern
304
Advance to next pattern
318
Y
Match?
306
Y
N
More patterns?
314
N
Get ID
308
Send back failure indicator
316
Return ID to caller
310
Make decision based on ID
312

Figure 3

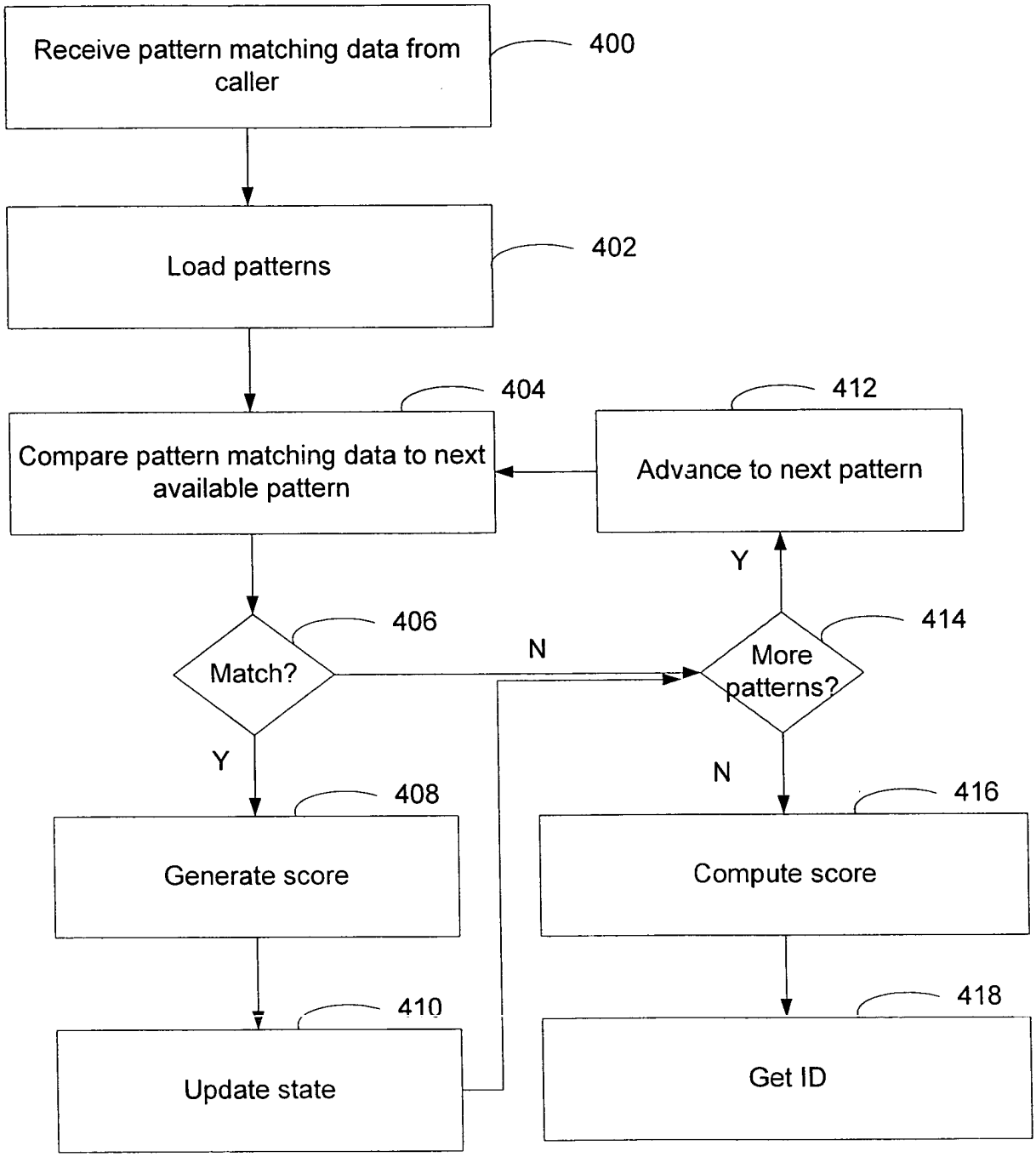
Receive pattern matching data from caller
400
Load patterns
402
Compare pattern matching data to next available pattern
404
Advance to next pattern
412
Y
Match?
406
N
More patterns?
414
Y
N
Generate score
408
Compute score
416
Update state
410
Get ID
418

Figure 4

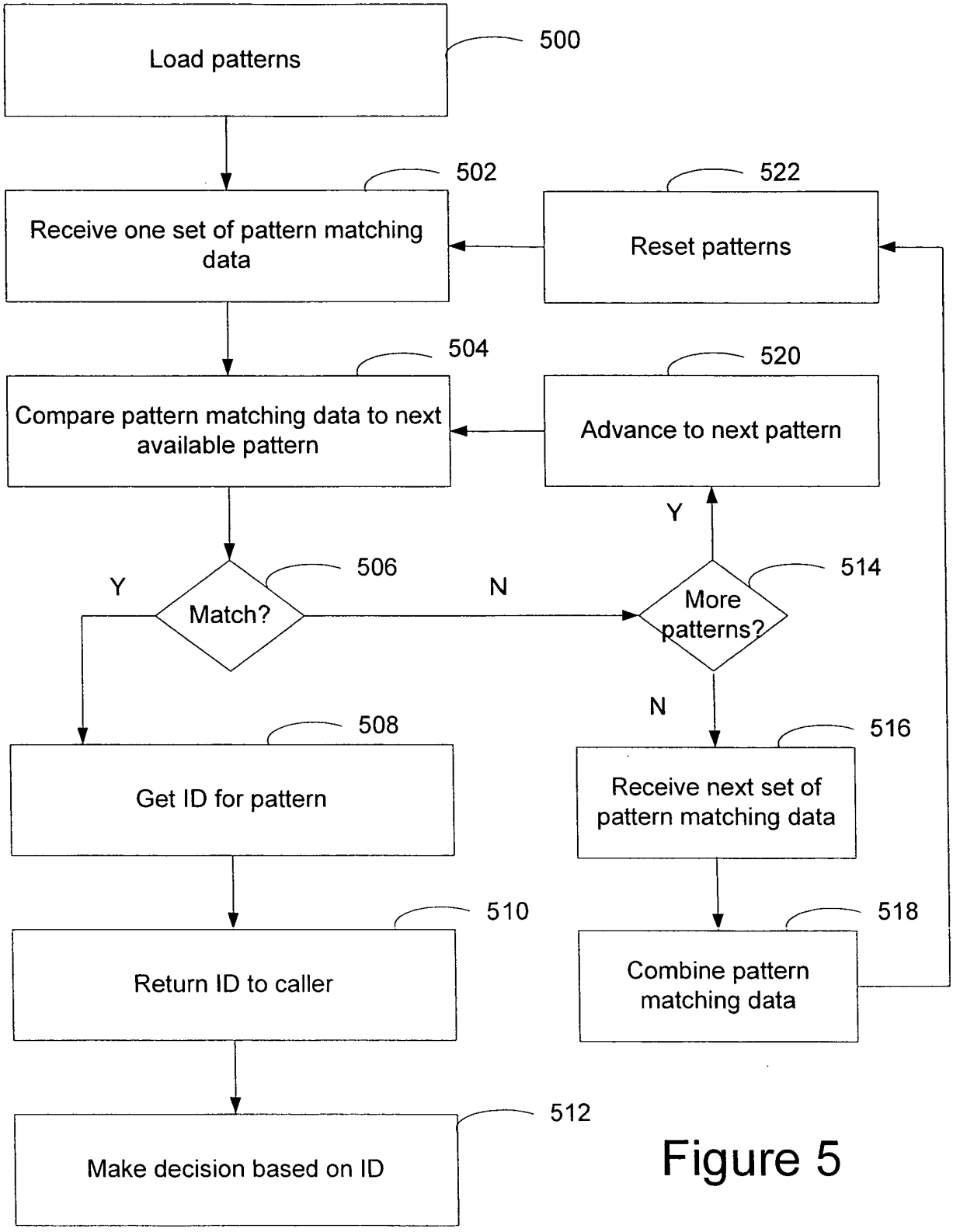
Load patterns
500
Receive one set of pattern matching data
502
Reset patterns
522
Compare pattern matching data to next available pattern
504
Advance to next pattern
520
Y
Match?
506
Y
N
More patterns?
514
N
Get ID for pattern
508
Receive next set of pattern matching data
516
Return ID to caller
510
Combine pattern matching data
518
Make decision based on ID
512

Figure 5

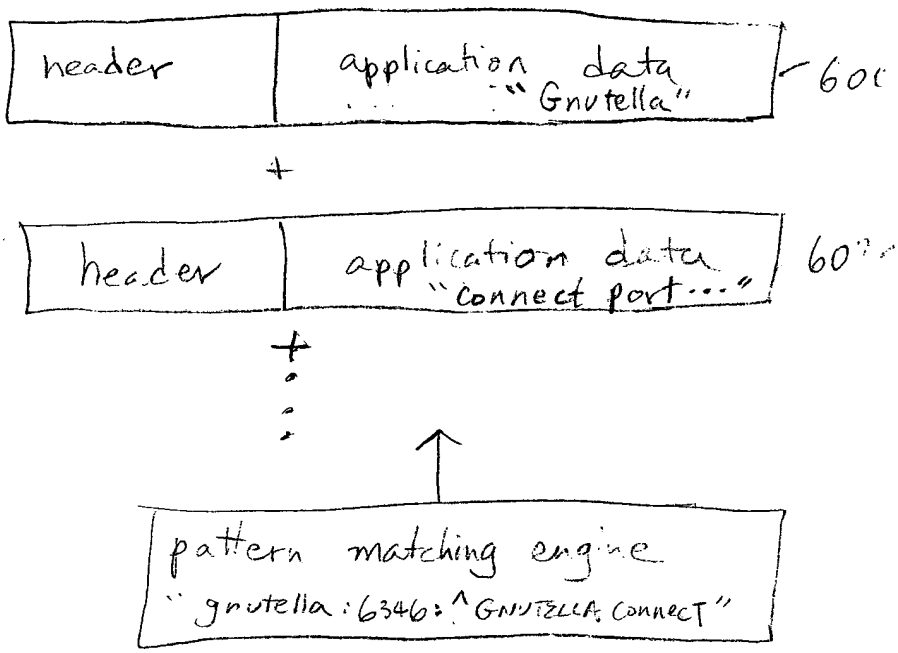
header
application data
"Gnutella"
60(
+
header
application data
"Connect port..."
60'
+
pattern matching engine
"gnutella:6346:^GNUTELLA CONNECT"

Figure 6